

Public Service Commission of Wisconsin Office of Energy Innovation Energy Innovation Grant Program ATTACHMENT A



3.1 Application Cover Sheet

SECTION I - Provide information summarizing the project proposal.							
Project Title: South Madison Community Resilience Center Deployment							
PSC Grant R	equest (\$):	Applicant	Cost Shar	e (\$):	Project Total (\$):		
\$92,0	000	\$5	51,500			\$143,500	
		Choose one E	ligible Act	ivity			
☐ Critical Infrastru Feasibility Study		☐ Critical Infr Feasibilit	astructure ly Study Le		√ Co	mmunity Resilience Center Feasibility Study	
SECTION II -	Provide information	n for your organiz	zation, sign	atory, and	primary co	ontact for the project.	
Applicant Type:	☐ City	□ Vill	age	□ Te	own	☐ County	
☐ Tribal N	Nation		Manufactu	rer		☐ K-12 School District	
☑ University of Wi	isconsin System	☐ Wisconsin Technical College Syste			em □ 501(c)(3) nonprofit		
	Municipal Utility water, electric, natur	☐ Hospital (public or nonprofit)				c or nonprofit)	
Name (on W-9):	water, electric, natur		The Board of Regents of the University of Wisconsin System				
Address (on W-9):		21 N. Park St., Suite 6401, Madison, WI 53715-1218					
County or Counties Se	erved by Project:	Dane					
DUNS Number or CA		161202122					
NAICS Code:		611310					
Authorized Represent (Person authorized to su	d sign contracts)	Primary Contact (if different from Authorized Representative)			l Representative)		
Name: Brenda Eq		Name: Josh Arnold					
Title: Managing		Ti	Title: Campus Energy Advisor		y Advisor		
Phone: 608-262-3		Pho	ne: 608-8	608-890-0766			
E-mail: preaward		E-m	E-mail: josh.arnold@wisc.edu				
Signature of the Authorized Representative Burda Equi							

(R 10/20)

PSC REF#: 414483

3.2 Budget

UW-Madison South Madison Community Resilience

	Summary of Project Budget							
Line	Description	PSC Grant Request	Applicant Cost Share	Total Project Cost				
1	Personnel			\$0				
2	Fringe			\$0				
5	Travel			\$0				
6	Contractual	\$80,000		\$80,000				
7	Other		\$51,500	\$51,500				
8	Indirect	\$12,000		\$12,000				
	Totals	\$92,000	\$51,500	\$143,500				
	% of Total	64%	36%					

Applicant Comments: Cost Share Details are included in Merit Review Criteria Section 3.4.6.

Significant public and private investment will drive Village at Park redevelopment. For context, the Madison Common Council has authorized CDA pre-development (\$3,000,000) and site development (\$9,100,000). The Urban League of Greater Madison has raised \$1,500,000 for a Black Business Hub to be located at the site. To leverage the CIMCRC grant investment, the lead applicant and target partners are matching through in-kind services, grants and incentives listed below. Funding for this study is critical now to keep pace with the CDA redevelopment schedule.

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3.3 Application Narrative

3.3.1. Project Description

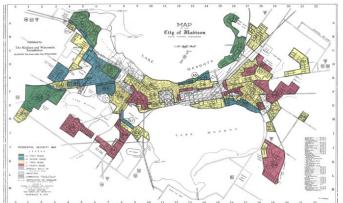
In late 2019, the UW-South Madison Partnership was in the process of planning to open its doors to a new expanded space at Village on Park, 2300 S. Park Street, Madison, WI to continue programming and services that uplift the diverse South Madison community. As the COVID-19 pandemic was rapidly evolving and its impacts becoming clear in March 2020, plans for opening this space and programming were necessarily put on hold. The project team started asking questions: What if, instead of having to close our doors, we were able to activate our site to meet community needs? What operating agreements would need to be in place? What technology would be necessary to bolster facilities and the site? While engaging target partners Madison Department of Planning and Community Economic Development and Community Development Authority, it became clear that input to the South Madison Plan identified a need for services and facilities that closely align with the concept of a Community Resilience Center and that re-development at Village on Park could provide an ideal location to deploy the first of its kind in the greater Madison area. This proposal request resources to accelerate implementation for maximum impact.

What is a Community Resilience Center? The Community Resilience Center feasibility study will leverage existing trusted community facilities and planned redevelopment at Village on Park as a Level 3 study. Our implementation study draws from open-source resources developed by the Urban Sustainability Directors Network (USDN) Resilience Hub project. Community Resilience Centers are trusted community facilities, enhanced with communications, processes and technology to enhance individual and neighborhood resilience throughout the year and provide essential services before, during, and after major disruptions. Such centers are designed to complement, not replace, existing emergency shelters and resources. Consistent with USDN, our study would determine necessary technology to enable a Community Resilience Center to serve the Village on Park site in three operating conditions: Everyday, Disruption, and Recovery. Community Resilience Centers are expected to operate in Everyday Mode most of the time. In Disruption Mode, the Community Resilience Center has the necessary operating agreements in place to activate the site and requisite technology to provide back-up power at the site. This valuable backup power would enable our Community Resilience Center to provide vital services during outage events such as heating and cooling, food distribution, phone charging, and community mobilizing. Back-up power at conventional locations is typically supplied by diesel power generators. Our implementation study will determine necessary sizing and system layout to downsize or avoid altogether the installation of a diesel power generator in favor of clean energy technologies such as solar photovoltaics and battery energy storage. Reducing the use of diesel back-up power will save money, reduce air pollution and contribute to pro-social goals of noise reduction and improved human health. Funding is requested to develop and install Solar Community Power Kiosks for charging devices and other equipment at the site, thereby increasing energy security in the community by enabling individuals to charge devices and access public wifi during Disruption events and Everyday operations throughout the year.

Why Select Village on Park for a Community Resilience Center? Public input and market studies, part of the South Madison Plan update process, have identified a need for services and facilities that closely align with the concept of a Community Resilience Center. The selection of Village on Park for Madison's first Community Resilience Center was a logical choice due to its highly visible location on South Park Street, the gateway to downtown Madison and the UW-

Madison campus, its presence as a trusted location by the community, and planned redevelopment by public- and private-sector stakeholders of community-initiated amenities, such as site infrastructure, a Black Business Hub developed by the Urban League of Greater Madison and affordable housing in a future development phase.

South Madison's Diversity and Resilience. Working together with neighbors and community organizations in the rapidly transforming South Madison Neighborhood and Village at Park location, our proposal was developed consistent with community-stated goals in the South Madison Plan priorities: anti-displacement and gentrification, community wealth building and



opportunities to thrive. The 6,400 people who live in neighborhoods and communities in South Madison comprise one of the most diverse, lively and resilient neighborhoods in the greater Madison area. A recent study indicated that 2/3 of area residents self-identify as "non-White" and over 40 percent speak a language other than English at home.

Generally, the residents of South Madison traditionally face barriers to adopting clean

energy solutions and have been disproportionately impacted by negative effects of fossil fuels and under-investment in infrastructure. Structural racism stemming from early red lining in this area (see 1887 planning map, above) continues to impact residents today. A recent survey indicated average median income for South Madison residents is only 55 percent of the average median income of residents in the greater Madison area. The UW-Madison Neighborhood Atlas® confirms Block Groups around this location between 7-9 out of 10 (most disadvantaged) in the state.

Why is CIMCRC Funding Needed Now? Our proposal for funding under Activity 3: Feasibility Study of Community Resilience Center Deployment (Level 3) is requested now to keep pace with the short window of opportunity within the proposed Village at Park site development schedule for maximum impact. Funding is requested to implement Solar Community Power Kiosks and to study implementation options for clean energy technology at the location. Timely findings from the study will have the maximum impact to keep pace with the CDA development schedule at the site and bring clean energy equity and energy security to the residents, end-users and community at Village on Park. This study will also add momentum to advance initiatives already in place by accelerating the development of organizational agreements, information resources and further bolster community engagement activities. Implementing this project now will provide equitable access to the benefits of clean energy and preparedness for the local community and serve as an innovative model for other communities in the state of Wisconsin and beyond.

3.3.2. Reference Materials List

- 3.5.1. Letters of Support
- 3.5.2. Supporting Information
- 3.5.3. Project Roster
- 3.5.4. Project Team Biographies and Short Resumes

3.4 Merit Review Criteria

3.4.1. Identification of Critical Infrastructure [Not applicable for this study.]

3.4.2. Key Partners & Stakeholders

Lead Applicant - University of Wisconsin-Madison	Key Partners
Office of Community Relations	Community Development Authority (CDA) of Madison
Office of Sustainability	City of Madison Department of Planning and Community
Office of Strategic Consulting	Economic Development (DPCED)
UW-Extension	Madison Gas and Electric (MGE)
Electrical and Computer Engineering	Focus on Energy
School of Business, Real Estate	Dane County Office of Energy and Climate Change
UniverCity Alliance	Dane County Emergency Management
	City of Madison Emergency Management

Letters of support from select key partners and a complete project roster, representing consultations with additional stakeholders including Emergency Management, is included in Section 3.5 Reference Materials.

The project team includes a UW-Madison-based team with a successful track record of delivering results supported by a panel of experts to deliver on the project's community, equity, technology and innovation goals. The Principal Investigator and project manager for this grant is **Josh Arnold**, **JD**, **MBA**, **LEED AP**, Campus Energy Coordinator at the UW-Madison Office of Sustainability, who will be responsible for ensuring that all grant eligibility and reporting requirements are met. Sustainability Office Director **Missy Nergard** will liaise with the Chancellor's Office and coordinate student involvement and innovative educational living lab experiences. **Sherrie Gruder**, Director of UW-Extension's Energy on Wisconsin program will be a technical advisor to the project.

Equitable engagement of and benefit to communities of color and low-income communities is demonstrated by this project arising from community-identified needs through the South Madison Plan update process currently underway at the Madison Department of Planning & Community & Economic Development (DPCED) and through UW-Madison's Office of Community Relations and UW-South Madison Partnership, located at the Village on Park facility. DPCED and UW-South Madison Partnership have developed trusted ties to community and will engage community elders and other members through formal and informal channels. **Tena Madison**, UW-Madison Office of Strategic Consulting, will contribute strategic planning and design. **Brenda Gonzalez**, Director of UW-Madison's Office of Community Relations and UW-South Madison Partnership Associate Director **Merry Farrier-Babanovski** will lead Innovation, Equity, Inclusion and Communications.

Greg Reed, Associate Director at the Graaskamp Center and Vice-Chair of the City of Madison's CDA, will serve as Real Estate Advisor to help coordinate information sharing and activities between CDA and UW-Madison. Prof. Giri Venkataramanan, Ph.D, will coordinate development of Solar Community Power Kiosks at the site, supported by staff and students at UW-Makerspace. The UW-Madison Division of Facilities, Planning and Management (FPM) is responsible for implementing the project and complying with applicable university and state procurement, contractual and construction requirements at leased and owned space. Gavin Luter, Managing Director of the UniverCity Alliance will serve as Innovation Advisor for the project, bringing in additional stakeholders to the project as necessary to accomplish project objectives related to innovation and community equity. An organizational chart of the UW-Madison Community

Resilience Center Project Team is included in Figure 1 below. Key staff biographies and short resumes are included in Section 3.5 Reference Materials.

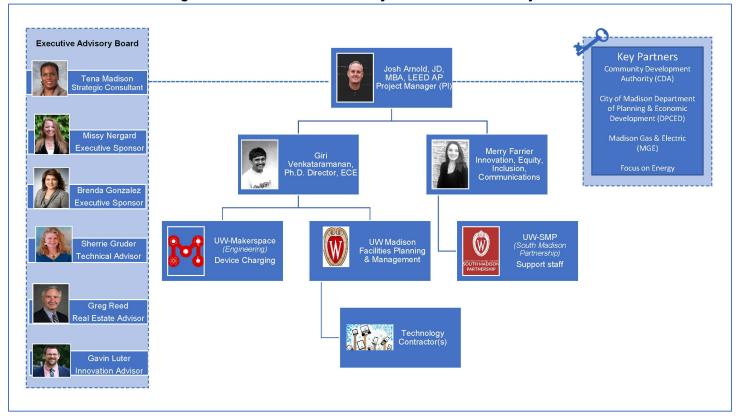


Figure 1. UW-Madison Community Resilience Center Project Team

3.4.3. Project Resilience Objectives & Metrics

This section includes information about project resilience objectives and metrics.

By the community and for the people. Our proposal was developed consistent with the community-stated goals of the DPCED South Madison Plan: anti-displacement and gentrification, community wealth building and opportunities to thrive. Public input and market studies, part of the South Madison Plan update process, identified a need for services and facilities that closely align with the concept of a Community Resilience Center. The first such project in the greater Madison area, the project team seeks to implement this project to provide equitable access to the benefits of clean energy and preparedness with the local community and to serve as a model for other communities in the state of Wisconsin and beyond.

Voice from the Community

"A community that makes sure we can keep living here affordably and that we're also not going to get flooded out. I'd be excited to see a plan that talks about how the neighborhoods might look, how much they'll cost to live or work in, and also how the plan lays out expectations to be good to the land and environment at the same time as far as storm water drainage or development's impacts on the environment or prioritizing gardens and that kind of thing. I'd love to see the experts make some kind of plan that is holistic like that."

-A.B., South Madison Cityzine

This project will be implemented in conjunction with planned re-development at the Village on Park, details of the site are included in Section 3.4.4. The Community Resilience Center will leverage existing facilities at the Village on Park site. The Community Resilience Center at Village on Park will not take the place of the designated emergency shelter for this area, located at James C. Wright Middle School at 1717 Fish Hatchery Road.

The Community Resilience Center study will result in the installation of one or more Solar Community Power Kiosks, device charging stations using solar PV and batteries that enable people to charge devices and access life-line internet communications. These charging stations feature solar PV, inverters and battery storage to enable charging for 2-, 4 or up to 24 hours if power is out. In addition, the study will determine timely feasibility for implementing solar PV, a battery energy storage system, electric vehicle charging stations and green infrastructure at the site, which includes multiple meters and multiple electric utility customers and therefore would be

considered a Level 3 Microgrid Study for purposes of the CIMCRC proposal. This study will output technical and financial information to inform community members, stakeholders and the Community Development Authority to redevelop the site. In addition to actionable technical and financial results, the study will inform ongoing community activities located at UW-South Madison Partnership. Working with the talented team located at Village on Park, the UW project team will seek to develop nontechnical information resources for the

Voice from the Community

"Look at the total infrastructure. We're in a pandemic and lots of people can't access the internet. Can the city update its priorities to match the times? Is the internet considered a utility that the City can distribute and make accessible to everyone?"

-A.C., South Madison Cityzine

community and continue its practice of inviting and seeking out authentic community input. While not specifically listed in our organizational chart, community members, community elders and representatives from community organizations will be an important part of this study. A detailed task list and schedule is included in the table below.

Com	nmunity Resilien	ce Center – Project Resilience Objectives & Me	trics		
Task	Name	Description	Staff	Key Partners	Schedule
0	Community Engagement, Project Management and Reporting	Share project protocols to meet and exceed grant reporting requirements. Project information shared and feedback collected through existing channels.	OS, SMP, OSC, UCA	DPCED, CDA	During study
1	Project Initiation	Kick-off meeting with key partners to review draft scope, schedule and budget, confirm project needs and goals, identify barriers and confirm success criteria	All	All	Sep 2021
2	Technical Data Collection	Engage VOP tenants. With permission, obtain energy information through consumption records, facility plans, energy audit, load profile, review meter configuration.	OS, SMP, ECE, EXT, BUS, FPM, TC	CDA, F3, DPCED, MGE, FOE	September - October 2021
3	Site development coordination	Coordinate project permit requirements with planned CDA site development scope and schedule, discuss green infrastructure options	OS, ECE, EXT, BUS, FPM, TC	CDA, DPCED, MGE, FOE	September 2021 - June 2022
4	Value Streams	Identify energy incentives, finance options, value streams for energy resilience projects	OS, SMP, EXT, BUS, UCA	CDA, DPCED, MGE, FOE	October 2021 - February 2022
5	Solar Community Power Kiosks	Discuss possible locations and power levels for kiosks, establish project schedule for development and installation	OSC, ECE, FPM, TC, UCA	DPCED, CDA, F3	October 2021 - May 2022
6	Resilience Technical Feasibility System Design Options, Constructability, Engineering Installation and Commissioning, Operations and Maintenance Guide and Training. Review existing facility and site architectural/engineering documentation. Determine need for new structural and electrical systems analysis at existing facilities and site, accounting for planned site development where appropriate		OS, ECE, BUS, FPM, TC	CDA, MGE, FOE	October 2021 - April 2022
7	Review Operational Agreements	Review current operational agreements, including legal, risk, and contingency, determine need for updates	SMP, BUS, FPM	CDA, F3	December 2021 - April 2022
8	Case Study	The project team will write a brief case study including steps taken to develop the Community Resilience Center and project outcomes.	OS, SMP, EXT, BUS, UCA	CDA, DPCED	June 2022

Key: STAFF: OS – UW Madison Office of Sustainability; OSC – UW Madison Office of Strategic Consulting; ECE – UW Madison Electrical & Computer Engineering; BUS – UW Madison School of Business; EXT – UW Extension, Energy On Wisconsin; SMP – UW Madison Office of Community Relations, South Madison Partnership, UCA – UniverCity Alliance; FPM – UW Madison Facilities Planning & Management; TC – Technology Contractor(s); UMS – UW Makerspace. KEY PARTNERS: CDA -Community Development Authority of the City of Madison; DPCED-Madison Department of Planning and Community Economic Development; MGE -Madison Gas and Electric; FoE -Focus on Energy; DCEM -Dane County Emergency Management; CMEM -City of Madison Emergency Management; Mayor -City of Madison Mayor's Office; OECC- Dane County Office of Energy and Climate Change.

3.4.4. Evaluation of Site-Specific Information

The selection of Village on Park for Madison's first Community Resilience Center is a natural choice due to the location's social capital and planned redevelopment reflecting substantial public and private investments and its highly visible location on South Park Street, which acts as a gateway to the community, downtown Madison and the UW-Madison campus. CIMCRC resources would accelerate this study and maximize its effectiveness by keeping pace with the site redevelopment schedule.

Social Capital. As part of the community-driven South Madison Plan, Madison's Community Development Authority purchased the former Villager Mall site (2300 S. Park Street, Madison, WI) in 2004 to redevelop the property into an attractive, vibrant, multi-use space to serve the immediate community. Now called Village at Park, this location is highly visible with frontage on South Park Street, the main gateway to downtown Madison and the University of Wisconsin-Madison campus. Over many years of community grassroots efforts and stakeholder involvement, Village at Park now hosts (or is closely surrounded by) trusted community assets and services. Resilient programming and services abound at the site, including UW-Madison's South Madison Partnership. A list of selected community resources is included in Table 2 below.

Table 2. Selected Resilient Programming and Services at or near Village at Park

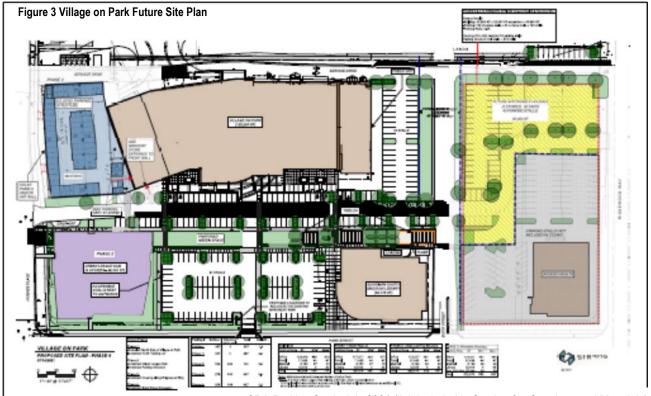
Education	Health & Nutrition	Legal Services	Community Resources
UW Odyssey Project (Humanities) Millionaires Club (financial literacy) Morgridge Center for Public Service (service learning) PAL (teacher training and certification) Meeting space for community-university partners	African American Breastfeeding Alliance WI Alzheimer's Disease Research Center UW School of Nursing – Oh Happy Day Class	Neighborhood Law Clinic Economic Justice Institute	 Urban League of Greater Madison Centro Hispano Burr Oaks Senior Living Madison Public Library (Goodman Branch) Public Health Madison & Dane County Women, Infant, Children Dane County Human Services Department Planned Parenthood Food Distribution Center Metro Bus – South Transfer Point City of Madison Police - South District City of Madison Fire Station #6 Madison College – Goodman South Campus

Figure 2 Village on Park Existing Site

source: CDA Parking Study July 2021 (included in Section 3.5 Supplemental Materials)

In 2009, the Madison Public Library and Urban League of Greater Madison joined the site at a new facility located at 2222 S. Park Street. The Atrium building, 2300 S. Park Street, last remodeled in 2009, is well-used but is indicative of physical facilities and site infrastructure at Village at Park that have become a limiting factor to continue to meet community goals. Development pressures in the area have exacerbated site constraints. Figure 2 indicates the existing site plan.

Public and Private Investment to Redevelop Village on Park. In 2019, the Department of Planning and Community Economic Development (DPCED) began to update the South Madison Plan to reflect the current vision of local residents. Through market studies, listening sessions and innovative ways of collecting feedback community input and values, such as the Madison Cityzine, a need for services and facilities that closely align with the concept of a Community Resilience Center was identified as part of a new vision for the South Madison neighborhood. In May 2021, the Madison Common Council approved \$12,100,000 for redevelopment activities at Village on Park, primarily focused on community-initiated site amenities and infrastructure to enable development of a Black Business Hub facility by the Urban League of Greater Madison, a municipal parking structure necessary to support site activation, and affordable housing in a future development phase. As part of this rapidly evolving vision, Village on Park's Atrium building, Madison Public Library facility, new parking structure and Black Business Hub will be co-located in a rapidly developing "campus." This location was selected because its physical characteristics offer solar access on facilities and site awnings, opportunities for battery energy storage, vehicles and devices charged by renewable energy and supported by green infrastructure. The refreshed vision for Village at Park is included in Figure 3 below.



source: CDA Parking Study July 2021 (link included in Section 3.5 Supplemental Materials)

The Community Resilience Center at Village on Park would add to the suite of technologies and assets that bolster communications to support the community year-round and in time of disaster. It would not take the place of emergency facilities, the designated emergency shelter for this area is located at James C. Wright Middle School at 1717 Fish Hatchery Road. A Community Resilience Center at this location could be an asset that spurs innovation at future development phases. Planned affordable housing in Phase Three could specify an all-electric building powered by renewable energy - reducing utility costs to support affordable housing goals. Additional studies could support a microgrid for the "campus" and an initiative similar to the Brooklyn Microgrid for innovation and energy security.

3.4.5. Technologies Under Consideration

The timing for this input is critical to future-proof the site consistent with goals for CDA development as detailed in Section 3.4.4. This study will include two parts. First, Solar Community Power Kiosks will be prototyped and implemented at the site. Second, the project team will implement necessary site and facility studies to size and price clean energy technologies for implementation. Technologies proposed for this study, listed in the Table 3 below, were selected due to proven performance, contributions to resilience goals and pro-social impacts to stakeholders, including non-energy impacts. A key question for the study is to determine whether solar PV and BESS can supplant the need for a diesel-powered backup generator or reduce its size requirements at the site. Ongoing discussions with stakeholders will continue to shape technologies and amenities at the site.

SOLAR COMMUNITY POWER KIOSKS

Prototype devices to be used for stakeholder analysis and evaluation for Tier 1 and Tier 2 will be developed for use for the feasibility project. The kiosks (i.e. device charging stations) will be considered and evaluated at different tiers. At all tier levels the design space will include the use of solar photovoltaic panels and energy storage devices besides traditional emergency back-up generation, and life-line internet communications for the community members using ruggedized multi-hop communication technologies. At Tier 1 level, the energy provision will include the capability to provide charging for mobile devices (@ about \$500). At Tier 2 level, energy services will include the capability to provide charging to personal transportation and healthcare such as e-bikes, scooters, and homehealth care appliances (@ about \$2000). At Tier 3 level, energy services will include the capability to serve critical community needs such as electric cook-stove, refrigerated storage for medicine, freezer for perishable food items and emergency auto vehicles (@ about \$10,000).

Table 3. Technologies Under Consideration

	PHASE 1		PHASES 1, 2, 3	PHASE 2		PHASE 3
Technologies	2300 S. Park Street Facility	2222 S. Park Street Facility	Site Development	Parking Structure Construction	Black Business Hub Construction	Affordable Housing
Energy Assessment	√					
Solar PV (rooftop)	V	1		V	V	
Solar PV (awnings or canopies)	√	1	√	V	1	
Battery Electric Storage System (BESS)	1		V	V	V	
Advanced/Smart Lighting	1		√	V	√	
Electric Vehicle Charging (L2, L3, V2G)	1	V	V	V	V	
Solar Community Power Kiosks (L1, L2, L3)	V	V	V	V	V	
Backup diesel generator	V				V	
Green infrastructure (geothermal, energy recovery)			V			
Net Zero Energy & Sustainable Design				$\sqrt{}$	√	$\sqrt{}$
Building Electrification					V	V
Microgrid and Transactive Energy					V	V

3.4.6. Cost Match

Significant public and private investment will drive Village at Park redevelopment. For context, the Madison Common Council has authorized CDA pre-development \$3,000,000 and site development \$9,100,000. The Urban League of Greater Madison has raised \$1,500,000 for a Black Business Hub to be located at the site. To leverage the CIMCRC grant investment, the lead applicant and target partners are matching through in-kind services, grants and incentives listed below. Funding for this study is critical now to keep pace with the CDA redevelopment schedule.

Site Stakeholder	Description	Value
CDA predevelopment	TIF Funding	\$ 3,000,000
CDA site development	TIF Funding	\$ 9,100,000
Urban League of Greater Madison	Black Business Hub Acceleration Fund	\$ 1,500,000
CI	MCRC Grant Cost Match	
Focus on Energy	Energy Efficiency Incentives (estimated)	\$ 2,000
Focus on Energy	Renewable Energy Program Incentives (estimated)	\$ 4,000
UW-Madison Office of Sustainability	Non-profit organization Second Nature designated UW-Madison for an Acceleration Fund Grant Award (2021)	\$ 5,500
Focus on Energy	Energy Design Assistance (New Construction) (estimated)	\$ 20,000
UW-Madison ECE and UW-Makerspace	Solar Community Power Kiosks project in-kind match to meet learning objectives of students	\$ 20,000
Lead applicant and target partners staff	In-kind services	NA
	Total	\$ 51,500

3.4.7. Data Collection Plan

The proposed timing for this study will planned CDA redevelopment activities at Village on Park to share information and provide timely information to complete the study within the grant performance period ending June 30, 2022. The data collection plan is included in Table 4 below.

Table 4. Data Collection Plan

TECHNICAL SYSTEM DATA	OPERATING AGREEMENT DATA		
Tenants at Village on Park will be invited to participate in this program. Tenants that agree and share their utility information will receive a free Energy Assessment to identify energy efficiency, demand reduction and sustainability opportunities.	REVIEW current operating agreements and emergency management plans at facilities and site. Determine needs to update for Community Resilience Center operations.		
FACILITIES AND SITE. Review existing facility and site architectural/engineering documentation and redevelopment plans.	EVALUATE LEGAL, RISK AND FINANCE. Determine whether lease, insurance and financial		
LOAD PROFILES. One or more load profiles will be developed based on participating tenants and services at the facility deemed necessary. Electric consumption and electric load data will be collected from utility consumption data.	arrangements should be reviewed in context of Community Resilience Center.		
METER CONFIGURATIONS. Working with MGE, the project team will review current meter configurations at the site and determine options for optimal fit with project resilience and economic goals.			

3.4.8. Systems Sizing Analysis

This section includes information about the feasibility and installation of Solar Community Power Kiosks, which would be implemented as part of this study and initial estimates for selected technologies. Costs for professional services, site electrical or facility structural upgrades, if necessary, are not included below.

Solar Community Power Kiosks. For purposes of this proposal, we assume installation of several kiosks that will total a 5 kW PV system. The actual number and locations of kiosks will be determined with community and stakeholder input. System sizing for Tier 1, Tier 2 and Tier 3 will be conducted on the basis of full-day, 4-hours and 2-hour outage to estimate the size of PV panels, inverters and battery storage. Prototype devices to be used for stakeholder analysis and evaluation for Tier 1 and Tier 2 will be developed for use for the feasibility project.

Solar PV and BESS Feasibility. Upon completion of Phase Two redevelopment, we expect Village on Park facilities would be able to accommodate at least 20 kW of solar PV on rooftops at the Atrium and Library facilities and/or as solar parking canopies or solar awnings on the top level and south face of the new parking structure. The actual configuration and sizing of solar PV panels and BESS would be determined in the feasibility study.

Electric Vehicle Charging Stations. After Phase Two, the new constructed parking structure will include 6.5 levels with parking for 369 vehicles. As of January 2021, City of Madison ordinance requires Electric Vehicle Charging Stations at 1 percent of new spaces and wiring for 10 percent of spaces. This would result in a minimum of 4 EV Charging Stations and wiring for a minimum of 37 EV Charging Stations. The 2021 parking study anticipates adding 270 stalls over the current parking stall baseline amount, resulting in a minimum requirement of 3 EV Charging Stations and wiring for 27 EV Charging Stations, we estimated 30 EV stations for this proposal.

Item	Definition	Power details	Function/Controls	Estimated Cost
Solar Community	Stand alone system with	50W Panel +	24/7 monitored and secured off-grid	\$500
Power Kiosk	PV, BESS and Inverter –	500Wh Battery +	2-4 hours of self-generation	
(Tier 1)	mobile device charging	200W inverter		
Solar Community	Stand alone system with	500W Panel +	24/7 monitored and secured off-grid	\$2,000
Power Kiosk	PV, BESS and Inverter –	1000Wh Battery +	2-4 hours of self-generation	
(Tier 2)	E-bike/scooter charging	1000W inverter		
Solar Community	Stand alone system with	5000W Panel +	24/7 monitored and secure grid-	\$10,000
Power Kiosk	PV, BESS and Inverter –	10kWh Battery +	connected islanded critical circuits	
(Tier 3)	Critical power circuits	5kW inverter	during contingencies; 2-4 hours of	
	ı		self-generation	
Facility Solar	Atrium 2300 S. Park	5 kW Solar PV	Rooftop mounted	\$12,500
	(123,295 SF)			
Facility Solar	Library 2222 S. Park	5 kW Solar PV	Rooftop	\$12,500
	(32,178 SF)			. ,
Parking	6.5 levels with parking	10 kW Solar PV	Top level parking canopies and/or	\$25,000
Structure Solar	for 369 vehicles		South facing awnings	
BESS	Battery Energy Storage	60 kW 120kWh	Battery system would provide at	\$120,000
	System	system	least 2 hours of outage time	
PV-EV Charging	30 EV charge stations	32A networked	Located at Parking Structure and	\$ 15,000
Stations	•	circuit	throughout site ~\$500/station	·

3.4.9. Financial Analysis

An initial analysis of the redeveloped Village on Park site and described in Section 3.4.8. indicates that Solar Community Power Kiosks, a Solar PV and BESS system and Electric Vehicle Charging Stations could be supported at the site and return a benefit-cost ratio of greater than 1.0. The Community Resilience Center feasibility study would be used to determine the actual sizing, locations and technology selections and to validate or modify these assumptions. We expect this study to demonstrate installation of technologies that would provide peak load support to the site. It is unlikely that users would participate in a demand response program immediately. As future development phases are enacted, commercial tenants or residents of future affordable housing at the site may be able to participate in future demand response programs.

This study would contribute to the clean energy economy by collaborating with the City of Madison Engineering Department's Greenpower program, training program for disadvantaged individuals to gain hands-on experience with solar assessment and installations, many of whom are people of color and some of whom may be residents of the South Madison community. Additionally, the program will offer a training experience for UW-Madison students at UW-Makerspace and help raise awareness.

The proposed technologies in our initial analysis have a benefit-cost ratio greater than 1.0, meaning that the net benefits of the project would outweigh the expected investment requirements. Estimated low lifetime impacts \$1,237,138 to high impacts of \$3,859,333. Expected lifetime electricity production of 348,000 kWh saving between \$51,929 and \$78,368 in avoided utility costs (kWh/kW) while avoiding 276 metric tons of carbon-dioxide equivalent emissions, valued between \$11,592 and \$57,960. Health impacts are valued between \$13,800 and \$104,880. The avoided cost of installing a new diesel back-up generator is estimated at \$150,000. Non-energy impacts, such as improved energy security, resilience, job creation, productivity, and economic stimulus are expected but are not quantified (except for health impacts related to avoided emissions reductions listed below).

The project's cost-effectiveness is calculated using a benefit-cost ratio based on the basic approach below including metrics in the table that follows.

	Basic Approach for Calculating and Representing Cost-Effectiveness Tests						
Net Benefits (Difference)	Net Benefits (dollars)	= NPV ∑ benefits (dollars) – NPV ∑ costs (dollars)					
Benefit-Cost Ratio	Benefit-Cost Ratio	= NPV ∑ benefits (dollars) NPV ∑ costs (dollars)					

Source: Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects.

Metric	Low	High	Source
Avoided electricity (\$/kWh)	\$0.03	\$0.05	Focus on Energy evaluation (2019)
Avoided demand (\$/kW)	\$117.43	\$174.17	Focus on Energy evaluation (2019)
Emissions (\$/MTCO2e)	\$42.00	\$210.00	100% Renewable Madison
Health Benefits (\$/MTCO2e)	\$50.00	\$380.00	Patz, et. al., Co-benefits of Global Greenhouse Gas Mitigation for Future Air Quality and Human Health (Nat. Clim. Chang. 2013 October 1, 3(10) 885-889).

3.4.10. Environmental Impact

Reducing energy waste and generating clean energy contributes to the Governor's Executive Order No. 38 for 100% Carbon-Free Electricity by 2050 and stated goals of clean energy equity and energy security. Lead applicant UW-Madison and Target Partners City of Madison, MGE and Focus on Energy have a long and successful legacy of environmental stewardship and forward-looking energy and climate targets, including the UW-Madison Resilience Commitment and UW-Madison Civic Action Plan. These organizational goals and policy drivers have contributed to the decision to install solar community power kiosks and determine appropriate feasibility for the technologies stated in Section 3.4.5 above. A list of such organizational initiatives and hyperlinks to relevant information is included in Section 3.5.2. Supplemental Materials.

Reducing energy demand contributes to improved resilience by reducing energy demand loads of the facility and of the electric grid. When implemented, generating clean energy through solar photovoltaics will produce an estimated 348,000 kWh of clean energy and avoid 276 metric tons of carbon dioxide equivalent over its estimated useful life, according to the EPA Greenhouse Gas (GHG) equivalencies calculator.

	Project	
Greenhouse Gas (GHG) Equivalencies (348,000 kWh)	Impact	Source
Carbon Dioxide equivalent – Metric Tons (MTCO2e)	276	EPA Greenhouse Gas (GHG) Equivalencies
Number of residential homes electricity use (1 year)	50	Calculator: https://www.epa.gov/energy/greenhouse-gas-
Number of passenger vehicles removed from the road (1 yr)	60	equivalencies-calculator

Technologies selected for consideration, detailed in Section 3.4.5. above, were selected due to their proven experience in Wisconsin's cold-climate, cost-effectiveness and potential environmental impact and fit with organizational goals and policy drivers. The methodology for technology selection was based on initial discussions with the project team, target partners, additional stakeholders and reviewing community input from the South Madison Planning process. The utility of a Community Resilience Center is predicated upon its presence in the community during emergency conditions and throughout the year. As we get used to the 'new-normal', where extreme weather events in our communities become commonplace, the resilience solutions focus on cleaner solutions for meeting critical energy demands during contingencies. The choice of solar photovoltaic systems and battery energy storage have been made on this basis and would be another step forward for the Village on Park to operate as a living lab to exemplify innovative sustainability and the opportunities of the clean energy economy. Educational programming will occur before, during, and after installation and will be designed to be innovative in its inclusive engagement of diverse partners and creative methods. Upon completion of the study, the project team would develop a case study to share information that other stakeholders could use to develop a culturally appropriate initiative in their communities. Together, these efforts will ensure that work on the Community Resilience Center will serve as an example for other public and private organizations and communities.

3.5 Reference Materials

Materials included:

- 3.5.1. <u>Letters of Support</u>
 - o Community Development Authority
 - o Madison Gas and Electric (MGE)
 - o Focus on Energy
 - o University of Wisconsin Madison
 - o Dane County Office of Energy & Climate Change
- 3.5.2. Supporting Information about Environmental Initiatives and Policy Drivers for Existing Resilience, Clean Energy and Community Planning Initiatives
- 3.5.3. Project Roster
- 3.5.4. Project Team Biographies and Resumes
 - o Josh Arnold, JD, MBA, LEED AP
 - o Missy Nergard, Ph.D.
 - o Gavin Luter, Ph.D.
 - o Greg Reed, MS
 - o Merry Farrier-Babanovski, MA
 - o Brenda González, BA
 - o Sherrie Gruder, LEED AP
 - o Giri Venkataramanan, Ph.D.
 - o Tena Madison

3.5.1. Letters of Support



Community Development Authority

Madison Municipal Building, Suite 161 215 Martin Luther King Jr. Boulevard Madison, Wisconsin 53703 ph (608)266.4675 fx (608)264.9291 email housing@cityofmadison.com mail P.O. Box 1785, Madison, WI 53701-1785

July 29, 2021

Public Service Commission of Wisconsin Office of Energy Innovation 4822 Madison Yards Way Madison, WI 53707-7854

Re: Critical Infrastructure Microgrid and Community Resilience Center Pilot Grant Members of the Review Committee:

I am writing you on behalf of the Community Development Authority to express our support for the application from the University of Wisconsin-Madison and partners to the Public Service Commission of Wisconsin's Office of Energy Innovation for the Critical Infrastructure Microgrid and Community Resilience Center Pilot Grant program.

Our organization supports the proposed feasibility study of a Community Resilience Center deployment at and around the Village on Park location in Madison, Wisconsin. Through public planning and market studies, the South Madison community identified a need for services and facilities that led to discussions about a Community Resilience Center. The proposed feasibility study will contribute important information necessary to bring this concept closer to implementation.

A Community Resilience Center feasibility study will contribute to the larger goals of developing more resilient infrastructure and supporting thriving communities. This study will contribute valuable findings for this site and may be a resource for other communities in Wisconsin and elsewhere that may wish to develop similar resources.

Sincerely,

Matthew Wachter Executive Director

Matthew Wachter

City of Madison Community Development Authority



Madison Gas and Electric Company P.O. Box 1231 Madison, WI 53701-1231 608-252-7000

your community energy company

Scott R. Smith

Vice President Business and Regulatory Strategy 608-252-5609

August 2, 2021

Public Service Commission of Wisconsin Office of Energy Innovation 4822 Madison Yards Way Madison WI 53707-7854

Subject: Critical Infrastructure Microgrid and Community Resilience Center Pilot Grant

Dear Members of the Review Committee:

Madison Gas and Electric Company (MGE) supports the University of Wisconsin-Madison's (UW) application to the PSCW's Office of Energy Innovation for the Critical Infrastructure Microgrid and Community Resilience Center Pilot Grant program.

MGE is happy to support the UW as its "local utility provider" in its efforts to develop the proposed Community Resilience Center feasibility study for a facility at and around the Village on Park location in Madison. This Community Resilience Center will provide Madison and its surrounding communities a hub for its citizens, MGE, and other stakeholders to plan for, avoid, and/or recover from energy delivery disruptions.

The proposed feasibility study will contribute important information necessary to bring such a facility closer to implementation. Should the UW receive this grant, MGE would be pleased to partner with them to make this project successful.

Sincerely,

Vice President

Business and Regulatory Strategy

bjb

Corporate Office 623 Railroad St., Madison, WI 53703 · Stock Symbol MGEE · 1-800-245-1125 · mge.com · Fax 608-252-7098

Recycled Paper

Focus on Energy 725 West Park Avenue • Chippewa Falls, WI 54729 phone: 888.623.2146

> business@focusonenergy.com www.focusonenergy.com

August 2, 2021

Public Service Commission of Wisconsin Office of Energy Innovation 4822 Madison Yards Way Madison, WI 53707-7854

Re: Critical Infrastructure Microgrid and Community Resilience Center Pilot Grant

Members of the Review Committee:

I am writing to express my support for the application from the University of Wisconsin-Madison and partners to the Public Service Commission of Wisconsin's Office of Energy Innovation for the Critical Infrastructure Microgrid and Community Resilience Center Pilot Grant program.

I support the proposed feasibility study of a Community Resilience Center deployment at and around the Village on Park location in Madison, Wisconsin. Through public planning and market studies, the South Madison community identified a need for services and facilities that a Community Resilience Center can offer. The proposed feasibility study will contribute important information necessary to bring this concept closer to implementation.

A Community Resilience Center feasibility study will contribute to the larger goals of developing more resilient infrastructure and supporting thriving communities in the Madison area. This study will contribute valuable findings for this site and may be a resource for other communities in Wisconsin and elsewhere that may wish to develop similar resources. Thank you for your consideration in offering this valuable support to the community.

Sincerely,

Adam Snippen, Energy Advisor (715) 720-2120

Adam Siyu

Adam.snippen@focusonenergy.com



July 29, 2021

Public Service Commission of Wisconsin Office of Energy Innovation 4822 Madison Yards Way Madison, WI 53707-7854

Re: Critical Infrastructure Microgrid and Community Resilience Center Pilot Grant

Members of the Review Committee:

We are writing to express our support for the application from the University of Wisconsin–Madison and partners to the Public Service Commission of Wisconsin's Office of Energy Innovation for the Critical Infrastructure Microgrid and Community Resilience Center Pilot Grant program.

We support the proposed feasibility study of a Community Resilience Center deployment at and around the Village on Park location in Madison, Wisconsin. Through public input and market studies related to the South Madison Plan, a need for services and facilities were identified that closely align with the concept of a Community Resilience Center. The proposed feasibility study will contribute important information necessary to bring this concept closer to implementation.

A Community Resilience Center feasibility study will contribute to the larger goals of developing more resilient infrastructure and supporting thriving communities. This study will contribute valuable findings for this site and may be a resource for other communities in Wisconsin and elsewhere that wish to develop similar resources.

Sincerely,

Rebecca M. Blank

Rebecca Blank

Chancellor

Morgridge Friends Distinguished Chair of Leadership

Chancellor Rebecca M. Blank Morgridge Friends Distinguished Chair of Leadership

Bascom Hall University of Wisconsin–Madison 500 Lincoln Drive Madison, WI 53706 608-262-9946 Fax: 608-262-8333 TTY 608-263-2473



August 2, 2021

Public Service Commission of Wisconsin Office of Energy Innovation 4822 Madison Yards Way Madison, WI 53707-7854

Re: Critical Infrastructure Microgrid and Community Resilience Center Pilot Grant

Members of the Review Committee:

Please accept this letter of support for the University of Wisconsin-Madison and partners' application to the Public Service Commission of Wisconsin's Office of Energy Innovation for the Critical Infrastructure Microgrid and Community Resilience Center Pilot Grant program.

In 2020 Dane County's Office of Energy & Climate Change issued a countywide comprehensive Climate Action Plan that charts a path to 50% countywide emission reductions by 2030. One of the principles in our plan is to support efforts that help communities adapt and become more resilient to the changes already baked into our climate. This project has the potential to be a terrific example of resiliency planning, especially insofar as it addresses equity as well as resiliency.

The Dane County Office of Energy & Climate Change supports the proposed feasibility study of a Community Resilience Center deployment at and around the Village on Park location in Madison, Wisconsin. The South Madison community—one of the more diverse and economically challenged areas of Madison—identified the need for a Community Resilience Center through planning and market studies. And definitely we agree that resiliency planning will benefit this area of Dane County. The proposed feasibility study will contribute important information necessary to bring this concept closer to implementation.

Additionally, this effort is a model of collaboration, engaging stakeholders from a variety of community and local government organizations, including Dane County Emergency Management staff as well as our office.

This Community Resilience Center feasibility study will contribute valuable findings for this site and may be a resource for other communities in Wisconsin and elsewhere that may wish to develop similar resources. We encourage you to fund this proposal.

Sincerely,

Kathy Kuntz Director

3.5.2. Selected Examples, Resilience, Clean Energy, & Community Planning Initiatives

[In alphabetical order]

City of Madison, Community Development Authority Parking Study (2021)

https://madison.legistar.com/View.ashx?M=F&ID=9685951&GUID=5F1AC960-0742-4F71-BE08-254B0DCE73A6

City of Madison, Department of Planning and Community Economic Development (DPCED)

South Madison Plan

https://www.cityofmadison.com/dpced/planning/south-madison-plan/3150/

City of Madison DPCED South Madison Market Study (2021)

https://www.cityofmadison.com/dpced/planning/documents/South%20Madison%20Market%2 0Study V12.pdf

Dane County Climate Action Plan

https://daneclimateaction.org/climate-action-plan

Energy On Wisconsin, Energy On Wisconsin website Solar Energy Financing Guide (May 2017)

Governor Evers' Executive Order No. 38, Relating to Clean Energy in Wisconsin (August 16, 2019) https://evers.wi.gov/Documents/EO%20038%20Clean%20Energy.pdf

Second Nature Climate Solutions Acceleration Fund

https://secondnature.org/climate-solutions-acceleration-fund-secondround/

South Madison Cityzine

https://www.cityofmadison.com/dpced/planning/documents/South%20Madison%20Cityzine FINAL.pdf

Sustainable Madison Committee, 100% Renewable Madison

https://madison.legistar.com/View.ashx?M=F&ID=7072081&GUID=1129163D-F7C1-41D8-9694-AA9EFFCA66FF

Urban Sustainability Directors Network, Guide to Resilience Hubs

http://resilience-hub.org

UW-Madison Engineering Hackathon Article

https://www.engr.wisc.edu/news/hackathon-helps-incoming-freshmen-apply-ece-skills-for-agreat-cause/

UW-Madison South Madison Partnership

https://communityrelations.wisc.edu/south-madison-partnership/overview

UW-Madison Resilience Commitment

https://sustainability.wisc.edu/strategic-initiatives/resilience-commitment/

3.5.3. Project Roster and Consultations (to date)

Codes:	Affiliation	Key Contact(s)	
UW-Madis	son Project Team	·	
os	UW-Madison Office of Sustainability	Arnold, Nergard	
OSC	UW-Madison Office of Strategic Consulting	Madison, T.	
ECE	UW-Madison Electrical and Computer Engineering	Venkataramanan	
BUS	UW-Madison School of Business	Reed	
EXT	UW-Extension, Energy On Wisconsin	Gruder	
SMP	UW-Madison Office of Community Relations, UW-South Madison Partnership	Gonzalez, Farrier	
UCA	UniverCity Alliance	Luter	
FPM	UW-Madison Facilities Planning and Management	TBD	
TC	Technology Contractor(s)	TBD	
UMS	UW-Makerspace	Lennon	
Target Par	tners (Community Members and Community Organization	s not included)	
CDA	Community Development Authority of the City of Madison	Koval, Wachter	
DPCED	Madison Department of Planning and Community Economic Development	Puerta, Greger	
MGE	Madison Gas and Electric	Smith	
FoE	Focus on Energy	Snippen	
DCEM	Dane County Emergency Management	McLellan, Husen	
CMEM	City of Madison Emergency Management	Kriegal, Duppler	
Mayor	City of Madison Mayor's Office	Reece	
OECC	Dane County Office of Energy and Climate Change	Kuntz	

3.5.4. Project Team Biographies & Resumes

Josh Arnold, JD, MBA, LEED AP is the Campus Energy Advisor with the University of Wisconsin-Madison Office of Sustainability, where he is responsible for coordinating energy conservation, renewable energy and strategic energy planning efforts. He is the project manager for UW-Madison's Second Nature Resilience Commitment. Josh has over 20 years of experience in the energy industry. Prior to joining UW-Madison, Josh developed the 100% Renewable Madison report for the Sustainable Madison Committee and implemented energy programs with the Focus on Energy program. Josh serves as an industry advisor with campus academic units including the Energy Analysis and Policy Graduate Certificate program at the Nelson Institute for Environmental Studies, the Wisconsin Energy Institute and the Wisconsin Institute for Discovery. His education includes a J.D. in environmental law from Lewis & Clark Law School, an M.B.A. from Portland State University and a B.A. from Tufts University.

Brenda González serves as Director of Community Relations and is UW–Madison's primary point of contact with local community and nonprofit organizations. She is responsible for developing strategies to ensure the university is engaged with these organizations and the broader community. Brenda has a bachelor's degree in social psychology from Universidad Autónoma Metropolitana Xochimilco in Mexico City, Mexico, and has completed graduate course work in Social Innovation Sustainability Leadership at Edgewood College and linguistics and communicative disorders at UW–Madison.

Sherrie Gruder, LEED AP, is a Sustainable Design Specialist, Energy On Wisconsin Program Manager and Distinguished Lecturer with UW-Madison Extension Community Development Institute. She authored the Solar Energy Financing Guide: Empowering Wisconsin Local Governments and assists them with energy and resilience planning and meeting their energy independent community goals profitably and effectively. Sherrie is a founder of UW-Madison's Climate Change Leadership Team where she developed a train the trainer module on climate mitigation and adaptation. Currently, she is developing materials and programs to address energy burden for Wisconsin low income and BIPOC communities. Pre-COVID, Sherrie served on Wisconsin Climate Change Initiative (WICCI) Sustainable Communities Committee. Sherrie is a LEED™ Accredited Professional by the US Green Building Council (USGBC). Sherrie was a member of the Focus on Energy Renewable Energy Network board for 10 years. Sherrie worked with the Wisconsin Office of Energy Innovation to develop and implement the Wisconsin Energy Independent Communities program. She contributed to the Dane County Climate Action plan. Sherrie chaired the City of Madison's Sustainable Design & Energy Committee to produce and implement two Sustainability Plans over 6 years. Sherrie has a BA from the University of Pennsylvania, and an MS from the University of Illinois at Urbana-Champaign.

Missy Nergard is the Director of Sustainability for the University of Wisconsin-Madison. In this enterprise level role, she integrates sustainability as a cross-sector, transdisciplinary platform in research and academics, public-private partnerships, and the built environment. Her research is on organizational system hierarchies that compartmentalize knowledge and inhibit connections to larger system interactions. She has over twenty-five years of experience in higher education administration and sustainability, and twenty years of experience in search and rescue, and disaster response.

Tena Madison is an Internal Consultant with the UW-Madison Office of Strategic Consulting, where she provides core services including strategic planning, organizational design, culture and climate, process improvement. Previously, Tena worked as a business analyst and BuckyNet Multi-School Administrator for the Wisconsin School of Business, as well as the Director of Technology Services.

Gavin Luter is the Managing Director of the UniverCity Alliance, a network of leaders at University of Wisconsin-Madison serving as the front door for local governments who want to leverage teaching, research, and service to improve their communities. Gavin's expertise is in developing and growing university/community partnerships and has created models and frameworks about how to achieve sustainable, equitable, and democratic partnerships. He carries a special interest in K-12 education partnerships, by virtue of him receiving his doctoral degree in Education Administration from University at Buffalo where he ran a university/community/community partnership in the Fruit Belt and Commodore Perry Neighborhoods. He also spent time as the Education Projects Coordinator at United Way of Greater Knoxville after working at the University of Tennessee-Knoxville's Howard Baker Center for Public Policy as Student Civic Engagement Coordinator.

Merry Farrier-Babanovski is the Assistant Director of the UW South Madison Partnership, Merry serves as the primary point of contact for the UW South Madison Partnership and works to build and sustain strong campus and community connections in south Madison and beyond. She completed her bachelor's degree in justice studies at Arizona State University and her Master's degree in educational policy at UW–Madison with a focus on equitable relationships between schools, families, and communities.

Greg Reed joined the Graaskamp Center as Associate Director in May 2019 and in this role focuses on recruiting and career services for the Real Estate MBA and MS Programs, and works with the Graaskamp Center team to expand the Center's role in applied learning, co-curricular and career services for real estate undergraduate students and serves as the Real Estate Club's adviser. Greg currently serves as an appointed Commissioner and Vice Chair on the City of Madison's Community Development Authority. Greg has a BA in Political Science and MS in Real Estate Investment from UW-Madison.

Giri Venkataramanan has been actively conducting research in the areas of power converter topologies, microgrids, wind power systems, and utility-scale power electronic systems. He is currently a Co-Director of the Wisconsin Electric Machines and Power Electronics Consortium (WEMPEC), Madison, WI. His current research interests are in the areas of sustainable systems, smart microgrids, power converter topologies and control, and utility grid-scale power electronics. He couples with his research interests in power electronics with educational activism both inside and outside the classroom, developing hands-on student projects aimed at increasing learning effectiveness and addressing energy development issues. He is known on campus for his leadership in developing the undergraduate Certificate in Engineering for Energy Sustainability, his involved in small-scale wind turbine and photovoltaic installations, and inspiring students on various sustainability activities across the board. Dr. Venkataramanan was a recipient of the Gerald Holdridge Teaching Award for his teaching excellence, the 2008 Benjamin Smith Reynolds Award for Excellence in Teaching, and the UW Madison Chancellor's Award for Distinguished Teaching. He received his BE degree electrical engineering from the Government College of Technology, Coimbatore, University of Madras, Chennai, India; an M.S. degree from the California Institute of Technology, Pasadena, CA and Ph.D. from the University of Wisconsin-Madison.



Josh Arnold, JD, MBA, LEED AP

(608) 890-0766 • josh.arnold@wisc.edu www.linkedin.com/in/josharnold360green

CLIMATE & CLEAN ENERGY EXPERT

Creating value and managing risk in the rapidly changing energy environment

Results-oriented, entrepreneurial team player with 20+ years global energy project experience, strong network and successful record of accomplishments for corporate, utility and government clients.

PROFESSIONAL EXPERIENCE

UW-MADISON OFFICE OF SUSTAINABILITY, Madison, WI. (current)

CAMPUS ENERGY ADVISOR

Coordinating energy conservation, renewable energy and strategic energy planning for UVV-Madison campus and enterprise-holdings.

- · Manager, UW-Madison Resilience Commitment
- · Contributor to Wisconsin Governor's Task Force on Climate Change
- Industry Advisor, Energy Analysis & Policy Program
- Research Collaborator, Wisconsin Institute for Discovery

NAVIGANT CONSULTING, Madison, WI.

ASSOCIATE DIRECTOR, GLOBAL CLEAN ENERGY & SUSTAINABILITY (2010 - 2019)

Client-facing consulting, business development. Managed teams <20 people, budgets <\$5M.

Delivered 100% renewable energy strategy for City of Madison, VM

U.S. GREEN BUILDING COUNCIL, Washington, D.C./Madison, WI.

MIDWEST REGIONAL MARKET DEVELOPMENT CONSULTANT (2007 - 2010)

Successfully executed organizational development strategies for 15 local chapters within a 12-state region.

FOCUS ON ENERGY/FRANKLIN ENERGY, Madison, WI.

PROGRAM MANAGER, MULTI-FAMILY NEW CONSTRUCTION (2005-2007)

Developed green building solutions for developers and owners of 100+ projects throughout Wisconsin.

OFFICE OF SUSTAINABLE DEVELOPMENT, CITY OF PORTLAND, OR. Portland, OR.

ENERGY FINANCE SPECIALIST (2004-2005)

Recruited multi-family buildings owners and managers to implement energy efficiency measures.



Josh Arnold, JD, MBA, LEED AP

(608) 890-0766 • josh.arnold@wisc.edu www.linkedin.com/in/josharnold360green

REPRESENTATIVE THOUGHT LEADERSHIP

Scenario Planning for the Wisconsin Energy System of 2050, Wisconsin Institute for Discovery. Develop policy interventions and discussion with policy makers to inform planning scenarios for moving to a clean energy future.

People, Planet, Profit: Exploring the Triple Bottom Line in Theory and Practice, UW-Madison. Developed, wrote and taught interdisciplinary sustainability course for students. Course syllabus included topics of energy, transportation, manufacturing, land use, food, and community.

REPRESENTATIVE SPEAKING ENGAGEMENTS

Presenter, Energy Analysis and Policy Program, UW-Madison, October 2019
Presenter, Transportation & Innovation Expo, "Transportation2Grid Concepts and Examples," May 2019
Attendee, Wisconsin Public Utility Institute, "Electric Grid Security and Resiliency," April 2019
Presenter, National Climate Adaptation Forum, "100% Renewable Madison," April 2019
Speaker, AESP Wisconsin, "What Can the Zombie Apocalypse Teach Us About DER?," October 2018
Speaker, Wisconsin Public Utility Institute, "Disruption and Innovation in the Electric Industry," Sept 2018
Attendee, Wisconsin Office of Energy Innovation Summit, May 2018
Speaker, Wisconsin Academy, Climate & Energy Summit, "Energy Systems of the Future," April 2018
Author, "Cities Like Madison Lead the Way to Local Clean Energy," Forbes, December 2017
Moderator, 100% Renewable Madison, Public Stakeholder Meeting, Sept 2017
Guest Lecturer, "Social Equity in Green Buildings" National University of Singapore, Jan 2017

CERTIFICATIONS, MEMBERSHIPS

Accredited Professional, Leadership in Energy and Environmental Design (LEED™) Green Building Rating System, Building Design + Construction (BD+C), Operations + Maintenance (O+M) Former Board Member, Sustain Dane Former Board Member, Wisconsin Green Building Alliance (now USGBC Wisconsin) Member, Oregon State Bar (inactive)

FDUCATION

JD, LEWIS & CLARK LAW SCHOOL, Portland, OR MBA, PORTLAND STATE UNIVERSITY, Portland, OR

BA, TUFTS UNIVERSITY, Boston, MA

Certificate, Oceanography, UNIVERSITY OF HAWAI'I, Honolulu, HI

GREGORY REED

(973) 722-8144 gregoryr.reed@gmail.com

Seasoned Private and Public Sector professional with diverse experience in:

- DEI Initiatives
- Strategic Planning
- Academic / Career Advising

Philanthropy / Fundraising

- Project ManagementCollaboration
- Leadership
- Public Speaking
- Innovation

PROFESSIONAL EXPERIENCE

GRAASKAMP CENTER, WISCONSIN SCHOOL OF BUSINESS, Madison, WI Associate Director / Faculty Associate

2019 - present

- Recruit and review all graduate school applications for MBA and MS Real Estate candidates. Recruited and enrolled the most diverse incoming graduate real estate class with 33% diverse, 25% female and 6% veteran grad students.
- Increased MS Real Estate enrollment from seven to 30 and MBA Real Estate enrollment from six to 15 students.
- Award annual graduate real estate student scholarships in collaboration with UW Foundation donor parameters.
- Collaborate with Career Services colleagues for undergraduate and graduate internship and job placement efforts. 85% of May 2021 graduate real estate students have secured employment across the U.S. and all six MBA Real Estate students secured summer internships. Coach undergraduate students for internship and job interviews.
- Conduct resume reviews, interview preparations, networking events and co-curricular and applied learning activities.
 WSB Career Pathways Committee member and frequent guest presenter for BBA and graduate information sessions.
- Serve as Faculty Advisor in an oversight role to the 250+ student lead Real Estate Club including virtual and inperson monthly meetings with guest speakers, semester trips to different markets, Cash on Cash Connections
 podcast series, and close coordination with the 1,200 member Wisconsin Real Estate Alumni Association (WREAA).
- Graduate real estate student academic advisor to all graduate real estate students. Provide feedback on undergraduate
 and graduate curriculum to ensure course learning objectives align with student and employer needs and
 requirements. Provided GSTS launch guidance and conduct ongoing SIS reviews for student coursework.
- Manage Wisconsin Real Estate alumni relations with Graaskamp Center, WREAA and UW Foundation colleagues
 to engage, inform and support real estate student mentoring programs, conferences and programming initiatives.
- Teaching introductory Real Estate Process course, RE 306, virtually summer 2021 to 68 students across the globe.
 Guest lecturer for other real estate coursework and frequent panelist for student and alumni events.

MOODY'S INVESTORS SERVICE, New York, NY

2009 - 2018

Vice President / Senior Credit Officer, CREF Structured Finance Group CMBS Surveillance

- Conducted Commercial Mortgage Backed Securities surveillance of 300+ Moody's rated mortgage pools for all
 property types and sectors across all US markets. Served as rating committee chairperson for CMBS deal reviews.
- Ongoing interactions with investors, servicers, trustees and market participants through deal reviews, press releases, market research publications, mortgage servicer reviews and industry conferences.
- Managed a team of six and trained, mentored and monitored a team of 15+ colleague's while working with investors, attorneys, trustees, servicers a5d senior leadership.
- LGBTQ & Allies Employee Resource Group co-chair /steering committee member. Lead internal efforts to review
 and revise LGBTQ employee benefits resulting in sustained 100% Human Rights Campaign Corporate Equality
 Index scores. Secured guest speakers for June Pride events and quarterly LGBTQ&A meetings.
- Served as a moderator and panelist for numerous DEI events covering Transgender health care benefits and employment issues, What it means to be an Ally, sharing Coming Out Stories with the Diversity Council, Women's and Veterans topics and numerous presentations to Moody's Diversity Council and senior leadership team.
- One of several Moody's representatives to Open Finance NYC between 2010 and 2018. Served as Best Practices
 committee co-chair and on executive leadership team. LGBTQ entity promoting professional development,
 volunteerism and networking amongst 45+ of NYC's leading financial services firms and banks. Secured LGBTQ
 guest speakers such as US Senator Tammy Baldwin, Mayor Annise Parker and Hudson Taylor from Athlete Ally.

GREGORY REED

Page 2

(973) 722-8144 gregoryr.reed@gmail.com

METLIFE REAL ESTATE INVESTMENTS, Mornistown, NJ Director in Real Estate Portfolio Management Unit (2008-2009)

1995 - 2009

Served on MetLife Real Estate's Investment Committee reviewing and approving domestic and international equity and debt transactions for MetLife's \$45 billion General Account real estate portfolio. Reviewed and discussed deal submissions while providing underwriting, deal structuring and mortgage pricing guidance. Monitored, analyzed and strategized domestic and international equity joint venture development activity totaling \$5+ billion.

• Established and improved new processes and procedures for MetLife's \$10 billion equity real estate portfolio including cohesive delegation of authority guidelines across multiple disciplines.

Joint Venture Relationship Manager (2006-2008)

- Managed MetLife's largest joint venture real estate development relationship with The Hanover Company, a
 developer of luxury multi-family properties. Interacted regularly with Hanover's senior management, debt, financial
 and domestic and international development teams.
- As Relationship Manager, coordinated MetLife colleagues across eight regional US offices in underwriting, developing, financing, leasing and selling 50+ leveraged domestic residential development projects totaling \$1.3 billion in MetLife equity commitments across 10,000 units in major US markets.

Asset Manager (1995-2006)

- Held various roles of increasing responsibility for oversight of 12+ million square feet of office and retail space from Manhattan to Boston. Formulated and executed investment strategy for each asset.
- Managed the sale process of \$4+ billion of real estate from Manhattan to Boston. Prominent Manhattan properties
 included 200 Park Avenue, One Madison Avenue, Eleven Madison Avenue and One Penn Plaza. Notable Boston
 properties included 101 Arch Street, 399 Boylston Street and 700 acres of land.

L.W. ELLWOOD & COMPANY, Ridgewood, NJ

1989 - 1995

Assistant Vice President, Real Estate Appraiser

- Underwrote and analyzed assets for acquisitions, dispositions, mortgage financing, joint venture partnership interests
 and highest and best use studies for institutional and banking clients throughout the U.S.
- Extensive travel and market analysis required to evaluate all property types in major markets.

EDUCATION

- Master of Science, Real Estate Appraisal and Investment Analysis, University of Wisconsin-Madison
- Bachelor of Arts, Political Science, University of Wisconsin-Madison
- Certificate in Historic Preservation, Drew University, Madison, NJ

PROFESSIONAL AFFILIATIONS AND COMMUNITY ACTIVITIES

- UW-Madison Department of Political Science Board of Visitors, 2014 to present. Currently serve as Chair of 30+-member alumni board engaging with students, faculty, staff, alumni and the UW Foundation to benefit students and the department. Worked to launch 1050 Bascom podcast series and coordinate programming for fall and spring semester alumni gatherings. Partnered with fellow alums to fundraise for several fully endowed Political Science Department chairs. Collaborated with English BOV to bring WI alum and WSJ sports reporter, Jason Gay, as a guest speaker and facilitated having the 1050 Bascom podcast series partner with the Graaskamp Center to feature recent podcasts covering the intersection of real estate, racial equity and Covid's impact on cities.
- Victory Fund / Victory Institute 2013 to present. Served on Victory Fund Campaign Board from 2013 to 2020.
 Reviewed LGBTQ candidates for endorsement and fundraised for their election campaigns raising / bundling over \$75,000. Secured Moody's ongoing corporate conference sponsorship and guest speaking engagements.
- Appointed Commissioner / elected Vice Chair, Community Development Authority (CDA) responsible for oversight of City of Madison's affordable housing portfolio in conjunction with CDA staff members.
- Former NYC Coop Board President, 2011 to 2017. Elected to seven-member coop board responsible for all financial, operational and building issues in a 50+ year old, 14-story, 130-unit building in Manhattan.

MERRY FARRIER-BABANOVSKI

CONTACT

Phone: 505-231-2379 Email: farrier@wisc.edu

Address: 1039 E Gorham St., Apt 2

Madison, WI 53703

EDUCATION

University of Wisconsin - Madison

2016 - 2019 | MA Educational Policy

Focus in Equitable Community and School Relationships

Arizona State University -Barrett, the Honors College

2011 - 2015 | BS Justice Studies

Minor in Educational Studies Summa Cum Laude

QUALIFICATIONS

- Proficient in Microsoft Office Suite, Salesforce, Google Drive, WordPress, Stata, MAXQDA, PeopleSoft Campus Solutions, Qualtrics, and Raiser's Edge
- Proficient in Spanish

VOLUNTEER EXPERIENCE

Mamie's Backyard Carden

Summer 2020

Odyssey Project Tutoring

• Fall 2019; Fall 2017

ULGM Schools of HOPE Tutoring

Spring 2017

PROFESSIONAL EXPERIENCE

UW-Madison Community Relations

UW South Madison Partnership Assistant Director 2019 - Present

- Building on the foundations and work of previous role, managed the expansion and move of the UW South Madison Partnership (UWSMP) space to its new location
- Sustained and strengthened relationships with key UWSMP partners and stakeholders through transition periods of both the expansion and the Covid-19 pandemic
- Worked closely with the Director of Community Relations to field requests and seek new opportunities to partner with campus and community stakeholders
- Led creation of UWSMP Strategic Plan and subsequent stakeholder engagement
- Managed operations and policy development necessary for both immediate adjustments due to the pandemic, and long-term goals of the UWSMP
- Identified and implemented new data collection systems for specific needs of the growing UWSMP, including Salesforce and ScheduleOnce reservation software
- Collaborated with community-engaged units across campus to further the work of the UW-Madison Civic Action Plan
- Supervised and supported the professional development of student workers including AmeriCorps VISTA service member

UW South Madison Partnership Coordinator 2016 - 2019

- Developed relationships with campus and community partners complementary to those of the Director of Community Relations
- Managed UW South Madison Partnership (UWSMP) office and served as point of contact for all logistical inquires
- Collected, analyzed, and presented data about the use and growth of the UWSMP and related community outreach efforts
- Supervised student workers (undergraduate and graduate) to ensure consistent support of Partnership efforts and guided their professional growth
- Managed Partnership social media presence including Facebook and website

LaSalle Middle School, St. Louis, Missouri

Assistant Teacher 2015 - 2016

- Taught "blended learning" classes at LaSalle Middle School, which
 provided guided and individualized practice in core reading and
 math skills for grades five through eight
- · Worked as in-house substitute teacher for all subjects
- Facilitated after-school enrichment program

Melissa A. Nergard

University of Wisconsin - Madison

Office: (608) 265-6769 E-mail: missy.nergard@wisc.edu

Education

PhD, Higher Education Administration

Illinois State University, Normal IL

Dissertation: "Optimizing University Campuses for Learning, Wellbeing and Equity: An Applied Study of Higher Education Facilities Organizational Systems."

MA. History

Illinois State University, Normal, IL

Thesis title: "Utilizing Illinois State University's Environmental Legacy and Historical Collections to Sustain a Global Future."

BA. Broadfield Social Sciences

University of Wisconsin Stevens Point, Stevens Point, WI

Professional Experience

University of Wisconsin - Madison

Director of Sustainability

2018 - Present

• Develop, implement and administer institutional and community sustainability programs with a focus on resiliency, public reporting and transparency, and campus culture

Illinois State University, Normal, IL

Director of Sustainability

2011 - 2018

 Develop, implement and administer campus and community programs related to sustainability utilizing civically engaged solutions that integrate economic, social and environmental systems

Lecturer, Honors Program

2017 - 2018

· Innovation and Inquiry

Assistant Director of Sustainability

2009 - 2011

• Design and implement sustainability programs for campus and the community

Human Resource Manager, Facilities Management

1996 - 2009

 Manage all personnel, budget, labor relations, safety, communications, and training and professional development related functions for a department of 400 employees represented by eight bargaining units

Selected Presentations and Publications

- "Everything I Learned in a Kindergarten Classroom" Global Conference on Sustainability in Higher Education, October: 2020
- "Achieving APPA's Mission Thru Academic and Community Partnerships" Illinois APPA: March 2018, University of Chicago
- "Greening Sports Beyond Football and Basketball" Collegiate Sports Sustainability Summit: June 2016, Purdue University
- "Corporate Social Responsibility Panel" Com Week 2016: April 2016, Illinois State University
- "Waste Minimization and Student Involvement" Illinois Counties Solid Waste Management Planning Commissioners
- "Corporate Social Responsibility Panel" Business Week, College of Business: March 2015, Illinois State University
- "Energy Dashboards: Cross-Disciplinary Opportunities for Coursework and Research" Association of Sustainability in Higher Education Annual Conference: October 2013, Nashville TN

Institutional Awards & Grants Received

U.S. Department of Education Green Ribbon Schools Award (2021)

EPA Green Power Partner Top 30 Schools (2021)

Second Nature's Acceleration Fund (2021)

DOE, Subcontract with MREA on Solar Pathways, a Sunshot Initiative (2014-2017)

DCEO, Community Food Waste Composting (2009-2011)

Committees and Institutional Service

AASHE (Association for the Advancement of Sustainability in Higher Education) Advisory Council

Advisor and Fiscal Agent for the Student Sustainability Committee

American College Health Association's Healthy Campus 2020

Carnegie Community Engagement Task Force

Center for a Sustainable Water Future Steering Team

Emergency Call Center Volunteer

Library Mall Redevelopment Planning Study-Core Advisory Team

MidWest Climate Collaboration, Institutional Partner & Steering Team

One Voice, Community Lobbying Initiative- higher education representative, serving on Mental Health, Entrepreneurial and STEM initiatives

Renewable Energy Program Advisory Board

Second Nature Resilience Commitment, Institutional Implementation Liaison

Yahara CLEAN Compact, Executive Committee & Steering Team

Selected Programs and Projects

Audubon Cooperative Sanctuary Program for Golf Courses – Designation achieved for Illinois State University's Golf Course.

Center for Innovation – A transdisciplinary center solving client issues through student and faculty led design thinking and innovation solutions.

Ecological Restoration of Environmental Laboratory – The restoration and academic integration of ISU's historical environmental laboratory

Outdoor Classroom at the Horticulture Center – Faculty and student design-build of an external classroom Renewable Adoption – 10 MW of solar through a Renewable Energy Rider Tariff (UW-Madison), and Solar Pathways, a Department of Energy research project for developing solar projects in higher education (ISU)

Resilience and Climate Action Plan – A comprehensive, community-based mitigation and adaptation plan for climate change

Water Conservation in Laboratories – Development and implementation of pilot programs in Chemistry laboratories for preventive maintenance of fixtures and use of vacuum pumps in place of running water for research

Zero Waste Institution – University initiative to reduce resource waste through procurement, behavior change, and campus-wide consistency

Community Involvement

Emergency Management Agency, K9 Handler (2012 – present)

University of Illinois Extension, Expansion and Review Committee (2014 – 2018)

McLean County Solid Waste Planning Committee (2015 - 2018)

Ecology Action Center - Board Member (2014 - 2018)

Association of Professional Energy Consultants - President (2017 - 2018)

Association of Professional Energy Consultants - Board Secretary (2014 - 2017)

Emergency Management Agency Foundation Board, Secretary (2014 - 2015)

Illinois Search Dogs (2003-2012)

BRENDA S. GONZALEZ, She, her, hers | <u>brendasamari@gmail.com</u> | 608-695-0308 | 1678 CAPITAL AVENUE, MADISON, WI 53705

PROFESSIONAL SUMMARY: Deeply dedicated and reliable professional with a stellar record of successful engagement with a wide variety of community demographics. Adept and innovative thinker with an ability to listen to stakeholders, improve access to information and services and create deep connections. Flexible full-time scheduling availability to include evenings and weekends as required.

PROFESSIONAL ASSETS

- Lextensive experience in program development and proven ability to provide the leadership necessary to keep programs and individuals on-task while making sure defined goals are accomplished
- Ability to work across departments, disciplines, and organizations with a credible, positive influence
- ▲ Engaging personality and approach that creates a collaborative environment among divergent populations
- A Positive, productive nature that motivates diverse team members to participate in challenging projects
- Extensive organization and program planning experience with emphasis on multicultural events
- A Sound ability to coordinate with all levels of management as well as work independently
- A Relevant experience working with staff and leadership to develop and execute a strategy to fundraising capability
- A Strong interpersonal, counseling, mentoring and consulting abilities
- A Excellent verbal and written communication skills in Spanish and English

PROFESSIONAL EXPERIENCE

Diversity Manager, Agrace Hospice and Palliative Care Services Madison, 2016 to Present.

- ▲ Develop, implement and provide ongoing management of an overarching diversity strategy and action plan to meet the mission and strategic goals of Agrace. Including the development and monitoring of diversity and inclusion (D&I) policies and procedures in collaboration with internal and external stakeholders
- ▲ In collaboration with Agrace's leadership and Boards of Directors assist in the establishment and application of organizational equity goals, objectives and strategies and develop and communicate plans to meet established annual operating goals
- ▲ Develop and implement engagement programs and materials to increase access to all Agrace programs and services for diverse and underserved communities.
- ▲ Collaborate and build relationships with key community leaders to assess cultural needs, increase community's knowledge and usage of Agrace, and partner on community health initiatives to assess hospice disparities. Collaborate with health care partners in identifying opportunities for educational and culturally specific programs to develop staff and enhance quality of care provided to hospice and palliative care patients
- ▲ Develop and utilize metrics for measuring the effectiveness of the outreach diversity initiatives implemented and prepare annual reports to senior management on the results of the initiatives. Manage the reporting and monitoring of performance against targets and plans.
- ▲ Drive the agenda to increase employee engagement with emphasis on D&I via internal change team (Advancing Inclusion and Equity Committee)
- Assist with the development of policies and programs to attract, retain and promote a diverse workforce for the organization. Assessing current programs through a D&I lens using the assessments to propose and develop new initiatives. Research best practices in diversity initiatives and use those findings to inform decisions and influence cultural change
- Articulate an understanding of cultural competency/awareness/humility and teach related concepts to employees and volunteers. Including the development of unique programs or communications strategies to promote diversity, and assess the outcomes of those initiatives with a focus on their impact as related to recruitment and retention and training

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- A Collaborate with the Human Resources / Professional Development Team, to develop and delivery of diversity training. Including e-learning diversity training materials and community learnings
- A Collaborates with Marketing & Communications on coordinating communication of Agrace's diversity events and initiatives on Agrace's website, intranet and other publications

Community Marketing and Health Equity Manager, Group Health Cooperative South-Central Wisconsin (GHC-SCW) Madison, 2013 to 2016.

- A Developed and executed marketing and engagement strategies that involve businesses, community organizations and individuals in to help create a stronger brand name for GHC-SCW products and services
- A Helped strengthen GHC-SCW's capacity to provide technical assistance and strategically focus sponsorship opportunities for organizations and projects that address health inequities within the community, with the goal of developing strong, mutually beneficial partnerships
- A Developed communications strategies and messaging to raise awareness of the impact the Affordable Health Care Act has on the underinsured or uninsured and perform targeted marketing outreach with a focus on those impacted by health insurance disparities
- A Provided outreach and education to GHC-SCW's members and community at large using a successful public services announcements and collateral material incorporated into what is known as the Better Together Project
- Coordinated a team of five Enrollment Member Specialists and licensed health insurance agents to provide guidance and education to members and the public that needed help navigate through the Federal Market Place
- A Participated in strategic planning activities and recommended innovative approaches to address health equity issues using internal data or community assessments that help build the case and baseline for more effective use of resources
- Assisted in the implementation of all community marketing and health equity plans in order to position GHC-SCW as a community leader in the adoption and implementation of Health Care Reform (HCR)

Health Equity Career Development Program Manager, Collaborative Center for Health Equity (CCHE), UW School of Medicine and Public Health, UW Madison, 2010 to 2013

- A Provided extensive professional outreach services to multiple academic institutions for the Research Training and Education Core of the UW Institute for Clinical and Translational Research and CCHE
- Advanced career development programs targeting underrepresented minority scholars interested in health professional schools, graduate programs and training programs in clinical and translational health disparities research
- A Provided overall coordination to CCHE's annual Health Equity Leadership Institute to increase the number of investigators engaged in health equity research in Wisconsin and nationally
- A Built campus-wide awareness for health disparities/equity research by maintaining annual Health Equity Leadership Institute (HELI)
- A Contributed to multiple UW research and education training initiatives associated with the Center, including the SMPH Centennial Scholars Program, the Advancing Health Equity and Diversity Initiative and serves as a point of contact to connect the Center with diverse pre-health and pre-med student organizations on the UW campus
- Worked with the UW ICTR Research Education Career Development Core team, lending insight and direction to research mentoring curriculum content specific to advancing community engaged, health equity researchers
- Designed engagement and career development activities to launch new post-doctoral training programs for African, Latino, Asian and Native American (AHANA) scholars
- A Convened formal and informal meetings of the AHANA Scholars with other minority scholars on campus, including UW pre-health undergraduate programs at UW School of Medicine and Public Health
- A Participated in regional and national events to ensure visibility of the ICTR mentored career development and CCHE programs to eligible applicants with focus on members of racial/ethnic groups typically underrepresented in the health sciences

Deputy Director of New Routes to Community Health, The Benton Foundation/RWJF, Madison, WI. 2007 to 2010

- A Provided operational leadership to eight New Routes national grant sites that work on creating and using locally focused media as a tool to address health issues of new immigrants and to empower emerging leaders in the community
- ▲ Oversaw the programmatic activities that included: regular progress and budget reports to the national program office staff and the supporting Foundations. Technical assistance and direction to some 30 nonprofit and immigrant organizations, commercial, community and public media centers, and higher education institutions that are part of each grant site. Supervised the work of New Routes national advisors, staff and consultants that are part of the virtual team located across the United States
- ▲ Collaborated closely with the New Routes Director on content development and logistics of national grantee meetings and site visits to monitor activities, provide technical assistance and evaluate progress. And, guided the efforts of all projects, including the national program office, in the use of ethnic, community and new media as outreach strategy
- A Provided direction primary in the areas of immigrant and community health, linguistic access, leadership development, cultural competence, and community building. And, represented and promoted the New Routes model with funders, like-minded groups and the public

Manager of Interpreter Services & Cultural Outreach, Dean Health System, Madison, WI.2000 to 2007 | Public Health Aide-Outreach Worker, City of Madison DPH. Madison, WI 1996 to 2000 | Bilingual Account Representative, Great Lakes Higher Education Co., Madison, WI 1996 | Financial Specialist Assistant, Associated Students of Madison, UW-Madison. Madison, WI 1996 | Bilingual Teacher Assistant, Sheridan Elementary School. Sheboygan, WI 1992 | Counselor, Department of Social Services and Counseling, UAM-Xochimilco, Mexico City, Mexico. 1992 |

EDUCATION

- ▲ Graduate Course work In Social Innovation Sustainability Leadership, 2018 Edgewood College
- Graduate Course Work in Linguistics and Communicative Disorders, 1996 University of Wisconsin-Madison
- Bachelor of Arts in Social Psychology, 1991 Universidad Autónoma Metropolitana-Xochimilco (UAM-X) Mexico City, Mexico

AWARDS/ACCOMPLISHMENTS

Wisconsin's most powerful Latinos, Madison365 (2017) | BRAVA Women to Watch, Brava Magazine (2015) | Hispanic Achievement of the Year Award, La Movida/Mid-West Family Broadcasting (2013) | Velma and Harry Hamilton Community Award, NAACP (2012) |

AFFILIATIONS

National Hospice and Palliative Organization Diversity Advisory Council. Member (2018-present) | Evjue Foundation. Board Member (2018-present) | Access Community Health Centers. Board Member (2017-present) | Urban League of Greater Madison. Board Member (2014-2016) | Tee Up for Nursing Planning Committee – Edgewood Collage (2014-2015) | United Way of Dane County – Board member and Agency representative (since 2005) | Overture Center for the Arts. Community Advisory Board member (2012-2014) | Boys and Girls Club of Dane County. Board member (2006 -2012) | Centro Hispano of Dane County. Board President (2010-2012) | YWCA Woman of Distinction Selection Committee (Since 2010) | Centro Hispano of Dane County. Board member (2009-2010) | Dane County Health Care Providers: Interpreter Program. Member (Since 2000) | Latino Support Network and Executive committee. Member (since 2000) | Latino Health Council and Executive Committee. Member (since 2000) |

References available upon request

GIRI VENKATARAMANAN,

Professor, E-mail: giri@engr.wisc.edu Ph: (608) 262-4479

Department of Electrical and Computer Engineering

University of Wisconsin-Madison

EDUCATION AND TRAINING

University of Wisconsin-Madison Electrical Engineering PhD 1992
California Institute of Technology Electrical Engineering MS 1987
University of Madras, India Electrical and Electronics Engineering BE 1985

RESEARCH AND PROFESSIONAL EXPERIENCE

- 1. University of Wisconsin, Madison, Assistant Professor 1999-2004; Associate Professor, 2004-Director, Wisconsin Electric Machines and Power Electronics Consortium (WEMPEC).
- 2. Montana State University-Bozeman, Assistant Professor 1992-98; Associate Professor, 98-99 SELECTED PUBLICATIONS RELATED TO THE PROPOSAL
- 1. D Ramirez, V Ramirez, G Venkataramanan, "Cyber security in infrastructures. Application to the components of a Smart Grid" DYNA 94 (5), 518-522, 2019
- 2. D Ramirez, G Venkataramanan, "Development System for Wireless Control Applied to Renewable Power Plants", IEEE Transactions on Sustainable Energy 9 (3), 1328-1336.
- 3. A. Manur, G. Venkataramanan, D. Sehloff, "Simple Electric Utility Platform (SEUP): A Hardware/Software Solution for Operating Emergent Microgrids", Journal of Applied Energy, Jan 2018, https://doi.org/10.1016/j.apenergy.2017.07.073.
- 4. A. Manur, M. Marathe and G. Venkataramanan, "A Distributed Approach for Secondary and Tertiary Layer Control in DC Microgrids," 2020 IEEE Energy Conversion Congress and Exposition (ECCE), Detroit, MI, USA, 2020, pp. 1284-1291.
- A. Manur, M. Marathe, A. Manur, A. Ramachandra, S. Subbarao and G. Venkataramanan, "Smart Solar Home System with Solar Forecasting," 2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020), Cochin, India, 2020,
- 6. David Sehloff, Ashray Manur, Adria Brooks, Giri Venkataramanan and Bernard Lesieutre, "Solar Forecast Uncertainty Pricing and Optimal Scheduling with the Simple Electric Utility Platform (SEUP)", Proceedings of the International Conference on Renewable Energy and Sustainable Environment (RESE - 2017), Pollachi, India, 20-22 July 2017.

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- 7. Adria Brooks, Ashray Manur, Giri Venkataramanan, "Energy Modeling of Aggregated Community Scale Residential Microgrids", IEEE 2016 First International Conference on Sustainable Green Buildings and Communities, Chennai, India, Dec 2016.
- Ashray Manur, Lee Shaver, Alec Sivit, Giri Venkataramanan, Shamsundar Subbarao,
 "MEM: Energy Management System for Low Voltage DC Microgrids", IEEE 2016 First
 International Conference on Sustainable Green Buildings and Communities, Dec 2016.
- C. Marney, G. Venkataramanan, M. Stadler, A. Siddiqui, R. Firestone, B. Chandran,
 "Optimal Technology Selection and Operation of Microgrids in Commercial Buildings",
 IEEE Transactions on Power Systems, Vol. 23, Issue 3, Aug. 2008, Page(s): 975 982.

SYNERGISTIC ACTIVITIES RELATED TO THE PROPOSAL

- 1. NSF, Resilient Energy Solutions for Home Healthcare, June-Dec 2020.
- 2. NSF, Microgrid Energy Manager (MEM) using wireless networks and cloud computing, Sept 2015-Feb 2017.
- 3. NSF, SEP Collaborative: A Unified Framework for Sustainability in Buildings through Human Mediation, \$1.2M Sept 2012-Aug 2016.
- 4. UTRC/US DOE ARRA, Smart load interfacing in Microgrids, \$323k, Sept 2010-Aug 2012.
- Wisconsin Public Service Commission (Focus on Energy), Consumer Adoption and Grid Impact Models for Plug-in Hybrid Electric Vehicles in Wisconsin, Aug 2008-July 2009, \$124k.
- 6. NSF, System Integration of Distributed Generation, Sept 2005-Aug 2009. \$260k.

Giri Venkataramanan, CV

TENAL. MADISON

Tena.Madison@gmail.com (608) 345-5737

OBJECTIVE

Systems thinker with over 10 years of experience supporting business solution software and analyzing business operations. Interested in utilizing my passion for patterns, people, and creating efficiency as well as my analytical ability to help your company meet the needs of your stakeholders. Possess a BS in Computer Science with an emphasis in business administration, an MBA with an emphasis in organizational Development, and Certifications in Business Analysis, Lean Six Sigma, and Project Management.

PROFESSIONAL EXPERIENCE

University of Wisconsin-Madison

Madison, WI

Director of Data Management, Division of Diversity, Equity, and Educational Achievement (DDEEA) (August 2015 - Present)

- Co-lead DDEEA strategic planning efforts to define business strategy, activity, and needs; ensure data strategy and architecture drives technology and aligns with DDEEA business strategy, activity, and needs
- Act as organizational development consultant with each unit in the DDEEA clarifying value proposition, theory of change, business strategy, measures of success, key performance indicators to elicit key master data; establish baselines
- Direct divisional efforts to improve the quality of DDEEA data and information by ensuring accuracy, security, and integrity; facilitate integration; increase timeliness of data capture and presentation; ensure data relevancy, value, and usefulness
- Lead and facilitate DDEEA Data Council to implement a data governance program and data literacy across the DDEEA
- Control the cost of data management and promote wider and deeper understanding of the value of data assets
- Develop and implement divisional master data management plans. Work collaboratively with campus and DDEEA leadership to
 establish strategic priorities, measures of success, key performance indicators and goals which define key data
- Establish, develop and maintain single sources of truth for key master data; oversee divisional compliance and education with campus and regulatory policy; Integrate data across disparate systems and oversee electronic profiles for all DDEEA units
- Provide comprehensive project management and business analysis of DDEEA data systems including performing requirements gathering, risk assessment and management, resource management, testing, training, evaluation, and ensuring user acceptance
- Perform business systems analysis for database projects; serve as business systems analyst for the campus Diversity Inventory Program and the employee disability accommodation case management system (I-Sight)
- Elicit business needs through individual and group consultation; map processes and work with stakeholders to strengthen and improve processes; perform gap analyses; stakeholder and organizational analyses, develop risk management plans
- Translate stakeholder requirements into tangible deliverables such as functional and technical specifications, use cases, user stories, workflow/process diagrams, data flow/data model diagrams; acceptance criteria
- Supervise, mentor, and coach data and technical academic staff, undergraduate student hourlies, and graduate assistants including data scientists and data analysts
- Represent and advocate for diversity, equity, and inclusion on the UW-Madison Data Steward Council; Participate in the Business Intelligence Community of Practice Experts; Policy Library Team, Digital Accessibility Committee, Project Leadership Group
- Work with Communications team and programs to develop information architecture and content strategy for all DDEEA websites; periodically perform search engine optimization; review page analytics and strategy with units

Business Analyst and BuckyNet Multi-School Administrator, Wisconsin School of Business (WSB) (May 2014 – August 2015)

- Provide comprehensive project management and business analysis of career services applications including performing requirements gathering, resource management, testing, technical documentation, training and end-user support
- Performed business systems analysis for WSB database projects using Microsoft Dynamics, SQL Server, MySQL, SharePoint, and Access; gathered requirements and managed \$280,000+ request for proposal for a UW-Madison enterprise career services management application
- Optimized BuckyNet and informed best practices for other school/college administrators; Served as chair for BuckyNet Advisory
 Board (a campus-wide collaboration) and BuckyNet admin committee; managed data integrity for BuckyNet and monitored and
 consulted on campus integrations (i.e. Final Destination Survey); lead and influenced without direct authority; engaged in
 constructive cross-channel communication; lead RFP process
- Provided aggregate career services data to the Offices of the Provost and Academic Planning & Institutional Research as well as UW System career offices and industry partners
- Elicited business requirements through individual and facilitated group SME interactions; mapped processes and worked with stakeholders to improve processes; proposed appropriate solutions, identified risks and created management plans; managed requirements, change log, user acceptance testing
- Developed and maintained business processes that drove software and web development efforts and ensured alignment with WSB's business needs; performed current state and gap analyses

PROFESSIONAL EXPERIENCE (CONTINUED)

Business Analyst and BuckyNet Multi-School Administrator, Wisconsin School of Business (WSB) (May 2014 - August 2015)

TENA L. MADISON Page | 2

Worked collaboratively with WSB and campus leaders, directors, faculty, and staff from multiple academic and administrative
units; Identified gaps between current deployment of applications and future requirements that evolved due to organizational
growth, changes, or new strategies; helped define scope and what done looks like

Director, Technology Services, Wisconsin School of Business, BBA Program (August 2012 - April 2014)

- Advised Assistant Dean for Wisconsin BBA on decisions related to branding, strategy, technology and program evaluation;
 Provided comprehensive technical support for all six student services units of the Wisconsin BBA Program including web development, content strategy, information architecture
- Facilitated BBA technology and operational strategic planning, organizational development including helping guide BBA staff through two re-brandings in 9.5 years including discovery with mission, vision, core ideology, value proposition and three year strategic plan
- Acted as a strategic partner between the WSB Technology Support Center and campus central IT organizations as well as WSB's
 Information Technology Solutions, Integrated Marketing Communications and Academic Technology and Web departments;
 facilitated discussions and committees tasked with integrating existing and developing new BBA related technologies and
 systems
- Provided comprehensive project management developing academic planning and career services units' online services controlling scope, budget, time, and quality for multiple projects
- Provided business analysis for BBA performing elicitation meetings, requirements gathering and management, resource
 management; developed testing criteria and quality assurance; provided end-user support and training; performed business
 systems analysis for database projects using SQL Server, MySQL, SharePoint, and Microsoft Access
- Served as the BBA's primary technical contact and negotiator with third-party career services software vendors for contracts totaling over \$500,00
- Managed and administered BuckyNet, online recruiting database and career services management software for campus; Chaired Multi-School Environment interschool committee on BuckyNet use and best practices and BuckyNet Advisory Board
- Designed, managed, and implemented BuckyNet.org website; maintained all other Wisconsin BBA websites
- Developed and implanted BBA Social Media strategy providing analysis of reach and trends as well as online image management
 using Google Analytics, Social Mention, Facebook Analytics, to inform BBA web and social media strategy
- Utilized InfoAccess (Oracle data warehouse) to pull and analyze enrollment, demographic, and event attendance data for yearly reporting and ad-hoc analysis
- Supervised full-time staff and student interns

Assistant Director, Technology Services, School of Business Career Center (July 2007 - August 2012)

- Assessed BuckyNet database of over 29,000 students and 10,000 employers for data integrity; served as resource for students, employers, faculty, staff, and alumni on the utilization of BuckyNet; acted as data custodian
- Evaluated and managed existing online services and technologies; reviewed and purchased new technologies and services and resolved any policy and procedural issues with state purchasing contract rules for up to \$50,000 in online services
- Managed delivery of technical and administrative support for BuckyNet (career services management software)
- Liaised with Wisconsin School of Business Technical Support Center (TSC), UW–Madison Division of Information Technology (DoIT), UW-System, Wisconsin Alumni Association, and other Schools and Colleges on campus
- Communicated with vendors for support and administration of technologies and subscription services; tracked usage data to inform contract renewals or modifications
- Elicited business requirements; gathered data; evaluated output requirements and formats to determine operational objectives
- Prepared technical reports by collecting, analyzing, and summarizing information and trends; improved systems by studying
 current data trends and designing modifications to fit business needs; utilized Infoaccess to pull and analyze demographic and
 event attendance data
- Trained staff on use of any new technologies and services. Supervised three student hourly employees
- Designed, developed and managed BCC website and an online, SharePoint, real-time parking portal for recruiters/customers
- Performed Business Systems Analysis for WSB database projects using SQL Server, MySQL, SharePoint, and Access
- Consulted, developed and administrated MS Access databases for multiple subunits including admissions, career services, and study abroad, placement statistics, and employer relations
- Supervised full-time staff and student interns

PROFESSIONAL EXPERIENCE (CONTINUED)

Front Office Manager, School of Business Career Center (BCC) (June 2006 – June 2007)

• Provided backup technical and administrative support for BCCnet (powered by Symplicity) software

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- Served as frontline resource for students, employers, faculty, staff, and alumni on the utilization of BCCnet.
- Supervised LTEs and student hourlies who provided front counter coverage and support to BCC constituents
- Maintained BCC budget: reconciled accounts and made deposits totally up to \$200,000; liaised with Business Services and UW Foundation; reconciled against WISDM; setup and tracked purchase orders, cost transfers and travel reimbursements

Interview Coordinator and Pre—College Summer Program Administrative Coordinator, School of Medicine and Public Health (November 2002–June 2006)

- Coordinated the MD degree program interview process
- Coordinated pre-college research programs for underrepresented and socioeconomically disadvantaged high school students: National Aeronautics and Space Administration Summer High School Apprenticeship Research Program (NASA Sharp) and the Research Apprentice Program (RAP); collaborated with State schools to confirm student information
- Assisted with the preparation of grants and extramural funding applications
- Gathered and analyzed data and requirements for MD/MDPhD and summer research programs to help inform program
 enrollment, improve program processes and planning, and underrepresented minority retention and recruitment activities

SITEL North America Madison, WI

Report Specialist/Analyst (February 1999–April 2002)

- Elicited requirements, planned, developed, and implemented software solutions for SITEL and its client, AT&T
- Trained end-users to use applications; documented application data flow, use, and processes
- Provisioned contracted and ad-hoc reports on time; maintained fewer than 5% rework, rewrite and resends
- Applied analytical and statistical techniques to identify high-impact opportunities toward the reduction of cycle-time, improvement of quality, and productivity
- Received "Reach for the Stars Award" for helping SITEL to meet business goals 2001 and 2002
- Received SITEL University Accomplishment Award for taking 27 online management and development courses such as Coaching, Supervising, Access, Excel, PowerPoint, Conflict Resolution, and Group dynamics to enhance my contribution to the organization

Senior Support Engineer (September 1998–February 1999)

- Provided end-user and technical support for Nationwide, a major insurance company
- Provided end-user training and technical support for Dragon, MS Office Suite, Internet Explorer, Client Management

Associate Support Engineer (January 1998-September 1998)

- Provided technical support via phone for America Online, a major internet service provider
- Used critical problem solving to troubleshoot modem functionality; created modem strings based on chip set information
- Maintained 90% + efficiency ratings in problems solved on first contact; Maintained 90% + efficiency on call quality and control

TECHNICAL SKILLS

- OS: Windows, Mac, Linux
- Microsoft: Visio, SharePoint, & Office Suite, Microsoft Dynamics, PowerApps, Planner; PowerPivot, PowerBl, Teams
- Project Management and Business Analysis: DBT, WBS, Projections, Agile, Waterfall, Use cases, User stories, BPMN, technical writing, requirements gathering and management. QA and user testing
- Databases: SQL Server, Oracle, Access, MySQL, data modeling, ERDs, Context Diagrams

EDUCATION

Upper Iowa University (UIU)

Master of Business Administration, *June 2013* Emphasis: Organizational Development

- Analytics & Reporting: Qualtrics, Google Analytics, Statistical Analysis, DMAIC, Six Sigma, UML, ISO 9000, Business Intelligence, Data Mining, Tableau, QI Macros, nVivo, STATA, R, SQL
- Development: Visual Basic 6.0/VBA/.Net, HTML5, XHTML, XML, JavaScript, VBScript, CSS, PHP, ASP, Dreamweaver, Visual Studio, Joomla, Sitecore CMS, WordPress CMS, MySQL Workbench
- Adobe CS, Final Cut Studio, Camtasia, iMovie
- Social Media Strategy, Search Engine Optimization, Online Image Management

Madison, WI

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Bachelor of Science, Technology Information Management, *June 2006* Emphasis: Business Administration, Graduated Summa cum Laude

University of Wisconsin-Madison

Madison, WI

College of Letters & Science, January 1995 – October 1997

Madison Area Technical College (MATC)

Madison, WI

Liberal Arts & Science Program, August 1990 to June 1991, August 1993 to December 1995

CERTIFICATIONS

University of Wisconsin-Madison

Madison, WI

Six Sigma Yellow Belt, September 2014
Six Sigma Green Belt, December 2019 (capstone project pending)
Business Analysis Certificate, June 2015
Project Management Master's Certificate, December 2016

ACTIVITIES

- UW-Madison Leadership Institute Participant, 2012-13; Co-Facilitator, 2013-2018
- Academy of Hwa Rang Do Martial Arts
- Dane County Humane Society Volunteer
- International Institute of Business Analysis (IIBA)
- NAACP Member
- Outdoor Afro-Wisconsin, Volunteer Leader
- Enjoy: learning, reading, gardening, beading, quilting, hiking, wild crafting